

Can Gum Chewing Improve Bowel Function? Initiating a Gum Chewing Protocol for Postoperative Cystectomy Patients

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Purpose

The purpose of this evidenced-based practice (EBP) project was to determine if a gum chewing protocol would reduce the time for bowel function return in patients undergoing radical cystectomy with either an ileal conduit or neobladder construction.

Background

Patients with invasive bladder cancer undergo a radical cystectomy with creation of substitute bladder using small bowel or diversion to urostomy with ileum. Surgical manipulation and reconstruction of the bowel has a great potential to reduce gastrointestinal peristalsis. Patients may experience abdominal distention, pain, nausea and vomiting. Research evidence supports gum chewing as an option to stimulate bowel motility postoperative abdominal surgery. "Gum chewing is a form of sham feeding, which could encourage gastrointestinal motility through cephalic-vagal stimulation," (Noble et al, 2009).

Methods

A small test of change project was initiated to trial the feasibility and evaluate the effects of gum chewing for postoperative radical cystectomy patients. A gum chewing algorithm was developed, approved by affected physicians, and a plan developed for implementation. Then, nursing staff were in-serviced on the protocol. Several patient outcome measures were used: time to first flatus, time to first bowel movement, and time of the first tolerated diet. Baseline data was collected on 22 patients. From April to May, seven patients underwent a radical cystectomy. The data for the gum chewing group was collected and compared to the baseline data.

Results

Of the seven patients that trialed the gum chewing protocol, two patients continued with the protocol until their diets were advanced. They reported passing flatus on postoperative day (POD) 3, compared to the baseline mean of 4 days. As well, one documented bowel movement occurred on POD 5 compared to baseline POD 6. Two of the seven patients were on the protocol but stopped due to NG placement and subsequent ileus. The remaining three patients declined to continue the protocol due to personal reasons, one of whom later developed an ileus. It appears that patients diagnosed with an ileus had previous abdominal surgeries. Furthermore, of the four patients that continued with the protocol, regardless of the result, they experienced greater comfort because they complained less of dry mouths.

Conclusion

A post-operative gum chewing protocol is feasible and potentially effective for urology patients undergoing major bowel related surgery. Continued implementation is required to determine whether a gum chewing protocol will improve bowel functions following radical cystectomy with an ileal conduit or neobladder construction.

References

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